

REMARKS

Applicant respectfully requests reconsideration and allowance of the application in view of the foregoing amendments and the following remarks.

Claims 1-11, 16, and 21 are pending in the application, with Claims 1, 9-11, 16 and 21 being independent. Claims 1, 9-11, 16 and 21 are amended herein. Claims 12-15, 17-20, and 22 have been cancelled without prejudice to or disclaimer of the subject matter recited therein. No new matter has been added.

Section 112 Rejections:

Claims 15 and 20 have been rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. Claims 1-10 have been rejected under 35 U.S.C. § 112, second paragraph, as being indefinite because of the use of the phrase “print data inputted from an outside” in Claims 1, 9 and 10. These rejections are respectfully traversed. Nevertheless, without conceding the propriety of the rejections, Claims 15 and 20 have been cancelled herein, and Applicant has amended Claims 1, 9 and 10 by deleting the phrase “an outside” and replacing it with the phrase “an external source,” thereby obviating the § 112 rejections.

Section 101 Rejection:

Claim 21 has been rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter. This rejection is respectfully traversed. Nevertheless, without conceding the propriety of the rejection, Applicant has amended the preamble of Claim 21 to

recite a program storage medium. Accordingly, Applicant submits that Claim 21 is directed to patentable subject matter under § 101.

Section 103 Rejections:

Claims 11-22 have been rejected under 35 U.S.C. § 103(a) as allegedly obvious over U.S. Patent No. 5,864,732 (Kato) in view of U.S. Patent No. 5,465,947 (Okumura et al.), and further in view of U.S. Patent No. 4,330,200 (Kikuchi et al.). Claims 1-5, 9, and 10 have been rejected under 35 U.S.C. § 103(a) as allegedly being obvious over Kato in view of Okumura et al. Claims 6 and 8 have been rejected under 35 U.S.C. § 103(a) as allegedly being obvious over Kato in view of Okumura et al., and further in view of U.S. Patent No. 6,483,604 (Gerstenberger). Claim 7 has been rejected under 35 U.S.C. § 103(a) as allegedly being obvious over Kato in view of Okumura et al., and further in view of U.S. Patent No. 6,104,498 (Shima et al.). These rejections are respectfully traversed.

Independent Claims 11, 16, and 21 are directed to an image processing apparatus, an image processing method, and a computer storage medium, respectively. Each of independent Claims 11, 16, and 21, as presently presented, recites, *inter alia*, selecting a first output mode when the number of copies of the print data to be outputted is larger than the number of the paper ejection bins capable of being used by the image forming apparatus, and selecting a second output mode when the number of copies of the print data to be outputted is equal to or smaller than the number of the paper ejection bins capable of being used by said image forming apparatus. In the first output mode, all pages of a first copy of the print data are output to a first paper ejection bin of the image forming apparatus, and the generated page image data is held. Then, the held page image data is read out and second and subsequent copies of the print data are

output to the first paper ejection bin or a paper ejection bin other than the first paper ejection bin. In said second output mode, the page image data is sorted for every page in accordance with a plurality of paper ejection bins possessed by the image forming apparatus, and page image data is output the same number of times as the number of pages to be output.

Thus, the invention as recited in Claims 11, 16 and 21, not only provides a first output mode and a second output mode, but also switches between these modes depending on whether or not the number of bins is larger than the number of output copies. More specifically, in the second output mode, a problem occurs when the number of bins is smaller than the number of output copies. In such a case, the first output mode is used. According to the invention, it is possible to effectively execute an output process by appropriately switching the first and second output modes based on the relation between the number of the bins and the number of the output copies.

None of the cited documents, whether taken alone or in combination, discloses or suggests the foregoing features of independent Claims 11, 16, and 21.

The Office Action asserts that the Kikuchi et al. patent discloses a mode corresponding to the first output mode of the present invention, the Kato patent in combination with the Okumura et al. patent discloses a mode corresponding to the second output mode of the present invention, and the Okumura et al. patent discloses that a sort mode and a multi mode are switched according to the relation between the number of copies and the number of bins. However, even if, for the sake of argument, the Kikuchi et al., Kato, and Okumura et al. patents could be combined as proposed in the Office Action, such a combination still would not suggest, at least the feature of the present invention, that the second output mode is used when the number

of the bins is larger than the number of the output copies, and the first output mode is used when the number of the bins is smaller than the number of the output copies.

First, while the Okumura, et al. patent may disclose switching a sort mode and a multi mode according to the relation between the number of the output copies and the number of the bins, the multi mode comprises first outputting the output copies to all the bins in the sort mode, and then outputting the remaining output copies after the output copies stacked on the bins have all been cleared away. That is, the multi mode is substantially equivalent to the sort mode, the only difference in the multi mode being that the system waits until the stacked papers are cleared away. Thus, the Okumura et al. patent does not suggest (i) a first mode of outputting all pages of a first copy of the print data to a first paper ejection bin of the image forming apparatus, and holding the generated page image data, and then reading out the held page image data and outputting second and subsequent copies of the print data to the first paper ejection bin or a paper ejection bin other than the first paper ejection bin, and (ii) a second output mode of sorting the page image data for every page in accordance with a plurality of paper ejection bins possessed by the image forming apparatus, and outputting page image data the same number of times as the number of pages to be output. Consequently, there would be no motivation to decide whether to eject copies to multiple trays or to a single tray, based on whether the number of trays is smaller than the number of copies to be ejected.

Moreover, even if the multi mode and the sort mode in the Okumura et al. patent are replaced with the modes taught by the Kikuchi et al. and Kato patents, the resulting combination still does not suggest whether to use the first mode or the second mode when the number of the bins is larger than the number of the output copies.

The Gerstenberger and Shima et al. patents are directed to a disk-based image storage system and method with prioritized loading and retrieval operations, and an image information print system and method, respectively; however, neither of these patents remedies the deficiencies in the Kato, Okumura et al., and Kikuchi et al. patents noted above, with respect to Claims 11, 16, and 21.

Accordingly, the cited art, whether taken alone or in combination, fails to disclose or suggest salient features of Applicant's invention, as recited in Claims 11, 16, and 21. For at least the foregoing reasons, Applicant submits that Claims 11, 16 and 21 are patentable over the cited art.

Independent Claims 1, 9, and 10 are directed to an image processing apparatus, an image processing method, and a computer storage medium, respectively. Each of independent Claims 1, 9, and 10, as presently presented, generally recites, *inter alia*, discriminating whether to execute the plural copy print by using page image data, or to execute the plural copy print without using page image data, in accordance with the maximum number of sorting page images that can be processed by at once, and the designated number of copies. Applicant submits that the cited art fails to disclose or suggest at least the foregoing features of Claims 1, 9, and 10, for reasons similar to those discussed above with respect to Claims 11, 16, and 21.

Accordingly, Applicant submits that the independent claims patentably distinguish the invention over the cited art. Reconsideration and withdrawal of the §§ 112, 101 and 103 rejections are requested.


Further, Applicant submits that the dependent claims are allowable for the same reasons that the base claims from which they depend are allowable, and further due to the

additional features that they recite. Individual consideration of each dependent claim is respectfully requested.

Applicant submits that the application is in condition for allowance. Favorable consideration of the claims and passage to issue of the application at the Examiner's earliest convenience are requested.

Applicant's undersigned attorney may be reached in Washington, D.C. by telephone at (202) 530-1010. All correspondence should continue to be directed to the below-listed address.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'David A. Divine', is written over a horizontal line.

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Attachment: Replacement Drawing Sheets for Fig. 10B

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DRAWING AMENDMENTS:

Please substitute the enclosed Replacement Sheets for the corresponding original drawing sheets.

The drawings have been amended as follows:

In FIG. 10B:

Change "app 11" to --APPL 1--; change "app 12" to --APPL 2--; change "app 13" to --APPL 3--; change "app 14" to --APPL 4--; change "app 15" to --APPL 5--; and change "app 16" to --APPL 6--, as shown.